

ABSTRACT OF THE DISCLOSURE

A glass composition consisting essentially by mol percent of about $55 < \text{SiO}_2 < 75$; $5 < \text{BaO} < 30$; and $2 < \text{MgO} < 22$ for use as a matrix of composite materials. A method of making a glass matrix-ceramic particulate composition useful for sealing electrochemical structures, such as solid oxide fuel cells is also disclosed. Method steps include the admixture of finely divided Mg_2SiO_4 particulates with the matrix glass, to reach an overall composition by mol percent of about $55 < \text{SiO}_2 < 65$; $5 < \text{BaO} < 15$; and $25 < \text{MgO} < 35$.

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